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CITY OF LANSING

Department of Planning and Neighborhood Development

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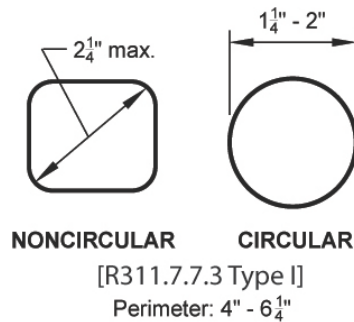
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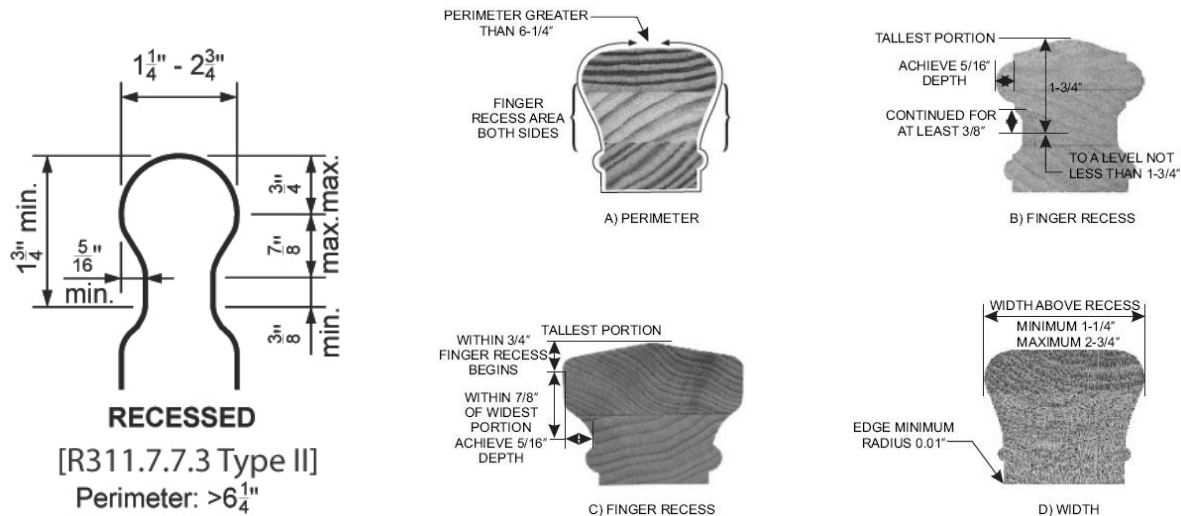
Office of Building Safety

Residential Handrails and Guardrails



Type I. Handrail (R311.7.8.3) - Handrails with a circular cross section shall have an outside diameter not less than $1\frac{1}{4}$ inches and not greater than 2 inches. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than $6\frac{1}{4}$ inches with a cross section dimension of not more than $2\frac{1}{4}$ inches. Edges shall have a minimum radius of not less than 0.01 inch.

Type II. Handrail (R311.7.8.3) - Handrails with a perimeter greater than $6\frac{1}{4}$ inches shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of $\frac{3}{4}$ inch measured vertically from the tallest portion of the profile and achieve a depth of not less than $\frac{5}{16}$ inch within $\frac{7}{8}$ inch below the widest portion of the profile. This required depth shall continue for not less than $\frac{3}{8}$ inch to a level that is not less than $1\frac{1}{4}$ inches below the tallest portion of the profile. The width of the handrail above the recess shall be $1\frac{1}{4}$ inches and not more than $2\frac{3}{4}$ inches. Edges shall have a minimum radius of 0.01 inch.



R311.7.8 Handrails. Handrails shall be provided on not less than one side of each continuous run of treads or flight with four or more risers.

The height of handrails serving stairs or ramps shall not be less than 34 inches or more than 38 inches measured vertically from a plane adjoining the stair tread nosings or the ramp surface. Stair handrails are to be continuous for the full length of each flight of stairs. They are to extend from at least a point directly above the top riser in the flight and a point directly above the lowest riser in the flight. The handrails are to be returned to the wall or terminate in newel posts or in safety terminals to protect stair users from impacting the unprotected ends of the rail. A newel post may be used at the turn in a stair that switches back and a decorative element such as a volute, turnout, or starting easing may be used at the lowest tread in a flight of stairs. Sections R311.7.8.1, R311.7.8.2.

Guards

Areas where people may fall more than 30" (762) below the location where they are standing are required to have guards. This includes porches, balconies, ramps, or raised floor surfaces. The guards are to be at least 36" (914) in height. Porches or decks enclosed with screens are also to have guards if they meet the 30" (762) criteria for height above grade. The open sides of stairs with a rise of more than 30" (762) are to have guards located at least 34" (864) above the same plane used to determine handrail heights. Guards are to have a pattern of material which does not allow passage of a sphere 4" (102) or more in diameter. See the illustrations on pages 86 and 88 for exceptions related to the requirements for guards at stairs.

